WEST

Help | Logout | Interrupt

Main Menu | Search Form | Posting Counts | Show S Numbers | Edit S Numbers | Preferences | Cases

Search Results -

Terms	Documents
L1 and (DSM 13329)	0

Database: US Patents Full-Text Database; US Pre-Grant Publication Full-Text Database; JPO Abstracts Database; EPO Abstracts Database; Derwent World Patents Index; IBM Technical Disclosure Bulletins

Search: L7

Refine Search

Recall Text | Clear

Search History

DATE: Thursday, August 29, 2002 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ			
L7	L1 and (DSM 13329)	0	L7
L6	L1 with (DSM 13329)	0	L6
L5	L1 with (ATCC 832)	0	L5
L4	L1 with (fungus or yeast)	4	L4
L3	L1 With paenibacillus	3	L3
L2	L1 With Bacillus	3	L2
L1	xyloglucanase	84	L1

END OF SEARCH HISTORY

WEST

Generate Collection | Print

Search Results - Record(s) 1 through 3 of 3 returned.

☐ 1. Document ID: US 20020076706 A1

L3: Entry 1 of 3 File: PGPB Jun 20, 2002

PGPUB-DOCUMENT-NUMBER: 20020076706
PGPUB-FILING-TYPE: new
DOCUMENT-IDENTIFIER: US 20020076706 A1

TITLE: Signal sequence trapping

PUBLICATION-DATE: June 20, 2002

INVENTOR-INFORMATION:

NAME	CITY	STATE	COUNTRY	RULE-47
Duffner, Fiona	Kobenhavn		DK	
Wilting, Reinhard	Farum		DK	
Schnorr, Kirk	Holte		DK	

US-CL-CURRENT: 435/6; 536/23.5, 536/23.7

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 2. Document ID: AU 200137247 A WO 200164853 A1

L3: Entry 2 of 3 File: DWPI Sep 12, 2001

DERWENT-ACC-NO: 2001-565502
DERWENT-WEEK: 200204
COPYRIGHT 2002 DERWENT INFORMATION LTD

TITLE: Novel xyloglucanase enzyme for use in textile, detergent and cellulose fiber processing industries comprises family 5 of glycosyl hydrolases and is derived from strains of Paenibacillus

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

☐ 3. Document ID: AU 200133623 A WO 200162903 A1

L3: Entry 3 of 3 File: DWPI Sep 3, 2001

DERWENT-ACC-NO: 2001-522819
DERWENT-WEEK: 200202
COPYRIGHT 2002 DERWENT INFORMATION LTD

TITLE: New xyloglucanase enzyme belonging to glycosyl hydrolases family, useful for detergent compositions, and textile or cellulose fiber processing industries

Full | Title | Citation | Front | Review | Classification | Date | Reference | Sequences | Attachments | Claims | KWIC | Draw Desc | Image

Generate Collection | Print

Terms	Documents
L1 With paenibacillus	3

Display Format: - Change Format

Previous Page Next Page

WEST

Freeform Search

Database: US Patents Full-Text Database; US Pre-Grant Publication Full-Text Database; JPO Abstracts Database; EPO Abstracts Database; Derwent World Patents Index; IBM Technical Disclosure Bulletins

Term: L1 with (fungus or yeast)

Display: 50 **Documents in Display Format:** - **Starting with Number** 1

Generate: ○ Hit List ◉ Hit Count ○ Side by Side ○ Image

Search | Clear | Help | Logout | Interrupt

Main Menu | Show S Numbers | Edit S Numbers | Preferences | Cases

Search History

DATE: Thursday, August 29, 2002 Printable Copy Create Case

Set Name side by side	Query	Hit Count	Set Name result set
DB=USPT,PGPB,JPAB,EPAB,DWPI; PLUR=YES; OP=ADJ			
L4	L1 with (fungus or yeast)	4	L4
L3	L1 With paenibacillus	3	L3
L2	L1 With Bacillus	3	L2
L1	xyloglucanase	84	L1

END OF SEARCH HISTORY

```
=> d his


     (FILE 'HOME' ENTERED AT 11:10:55 ON 29 AUG 2002)

     INDEX 'ADISALERTS, ADISINSIGHT, ADISNEWS, AGRICOLA, ANABSTR, AQUASCI,
     BIOBUSINESS, BIOCOMMERCE, BIOSIS, BIOTECHABS, BIOTECHDS, BIOTECHNO,
CABA,
     CANCERLIT, CAPLUS, CEABA-VTB, CEN, CIN, CONFSCI, CROPB, CROPU, DDFB,
     DDFU, DGENE, DRUGB, DRUGLAUNCH, DRUGMONOG2, ...' ENTERED AT 11:11:02 ON
     29 AUG 2002
                SEA XYLOGLUCANASE
               ---------
                 9   FILE AGRICOLA
                 1   FILE BIOBUSINESS
                22   FILE BIOSIS
                11   FILE BIOTECHABS
                11   FILE BIOTECHDS
                 3   FILE BIOTECHNO
                11   FILE CABA
                55   FILE CAPLUS
                 3   FILE CEABA-VTB
                 2   FILE CONFSCI
               172   FILE DGENE
                 3   FILE EMBASE
                 7   FILE ESBIOBASE
                 4   FILE FROSTI
                 7   FILE FSTA
                 5   FILE JICST-EPLUS
                 2   FILE LIFESCI
                 6   FILE MEDLINE
                 8   FILE PASCAL
                 1   FILE PROMT
                20   FILE SCISEARCH
                 3   FILE TOXCENTER
                62   FILE USPATFULL
                23   FILE WPIDS
                23   FILE WPINDEX
L1                QUE XYLOGLUCANASE
                  ---------

     FILE 'CAPLUS, WPIDS, BIOSIS, SCISEARCH' ENTERED AT 11:12:10 ON 29 AUG
2002
L2             2 S L1 AND (FAMILY 44)
L3            47 S L1 AND (BACILLUS OR FUNGUS OR YEAST)
L4            32 DUP REM L3 (15 DUPLICATES REMOVED)
L5             1 S L4 AND (FAMILY 44)

=> d l4 ibib ab 22-332


L4   ANSWER 22 OF 32  CAPLUS  COPYRIGHT 2002 ACS
ACCESSION NUMBER:         1999:48789  CAPLUS
DOCUMENT NUMBER:          130:106938
TITLE:                    Cloning and characterization of endo-.beta.-1,4-
                          glucanase from Saccharothrix australiensis and its
use
                          in cleaning compositions
INVENTOR(S):              Bjornvad, Mads Eskelund; Hatakeyama, Mariko;
Schulein,
```

Martin; Nielsen, Jack Bech
PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.
SOURCE: PCT Int. Appl., 82 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9901543	A1	19990114	WO 1998-DK286	19980630
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, GH, GM, GW, HU, ID, IL, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TR, TT, UA, UG, UZ, VN, YU, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, GM, KE, LS, MW, SD, SZ, UG, ZW, AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9879082	A1	19990125	AU 1998-79082	19980630
EP 1002059	A1	20000524	EP 1998-929243	19980630
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, NL, SE, PT, IE, FI				
US 6207436	B1	20010327	US 1998-109841	19980702

PRIORITY APPLN. INFO.:

DK 1997-812	A	19970704
DK 1997-846	A	19970711
US 1997-53506P	P	19970723
WO 1998-DK286	W	19980630

AB An enzyme prepn. comprising an enzyme having endo-.beta.-1,4-glucanase activity is provided from or endogeneous to a strain belonging to the genus Saccharothrix such as S. australiensis IFO 14444. The pH optimum of the enzyme was 8.0, and >50% relative activity was obtained between pH 6.5 and 9.0; its Km, Vmax, and dcat for phosphoric-acid swollen cellulose were calcd. An isolated DNA encoding the enzyme or enzyme core (the catalytically active domain of the enzyme) exhibiting endo-.beta.-1,4-glucanase activity is also provided. The expressed endoglucanase is useful in a detergent or fabric softener compn. or in the textile industry for improving the properties of cellulosic fibers or fabric or for providing a stone-washed look of denim. Tensile strength loss is induced by treating fabric with the endo-.beta.-1,4-glucanase from S. australiensis.

REFERENCE COUNT: 2 THERE ARE 2 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 23 OF 32 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 11
ACCESSION NUMBER: 1999:500672 CAPLUS
DOCUMENT NUMBER: 132:20934
TITLE: Effect of xyloglucan and **xyloglucanase** activity on the development of the arbuscular mycorrhizal Glomus mosseae
AUTHOR(S): Garcia-Garrido, Jose M.; Rejon-Palomares, Antonia; Ocampo, Juan A.; Garcia-Romera, Inmaculada
CORPORATE SOURCE: Departamento de Microbiologia del Suelo y Sistemas Simbioticos, Estacion Experimental del Zaidin, CSIC, Granada, E-18008, Spain
SOURCE: Mycological Research (1999), 103(7), 882-886
CODEN: MYCRER; ISSN: 0953-7562
PUBLISHER: Cambridge University Press
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effect of xyloglucan on spore germination, hyphal length and

mycorrhizal colonization of alfalfa plants was studied. The presence of high concns. of xyloglucan in the rooting medium inhibited mycorrhizal colonization in plants inoculated with Glomus mosseae. Intermediate xyloglucan concns. had no effect on arbuscular mycorrhizal (AM) colonization, but a low concn. increased mycorrhization of host plants. The effects of these doses on spore germination and hyphal length of G. mosseae were similar to those obsd. for mycorrhizal colonization. Prodn. of **xyloglucanase** was assayed during colonization by the AM **fungus** G. mosseae in lettuce and onion. Endoxyloglucanase activity peaked 15 d after inoculation, whereas exoxyloglucanase activity peaked at 30 and 50 d. Exts. from external mycelia of G. mosseae showed endo- and exoxyloglucanase activities. Some of the endoxyloglucanase activities detected in AM colonized plant roots may be derived from the AM **fungus**, as endoxyloglucanase proteins found in the external mycelia of G. mosseae and in mycorrhizal root exts. showed similar electrophoretic mobility. These results suggest that **xyloglucanase** is involved in the process of colonization of plants by G. mosseae.

REFERENCE COUNT: 40 THERE ARE 40 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 24 OF 32 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1999:39203 CAPLUS
DOCUMENT NUMBER: 130:206578
TITLE: A xyloglucan-specific endo-.beta.-1,4-glucanase from Aspergillus aculeatus: expression cloning in **yeast**, purification and characterization of the recombinant enzyme
AUTHOR(S): Pauly, Markus; Andersen, Lene N.; Kauppinen, Sakari; Kofod, Lene V.; York, William S.; Albersheim, Peter; Darvill, Alan
CORPORATE SOURCE: Complex Carbohydrate Research Center and Department of Biochemistry and Molecular Biology, University of Georgia, GA, 30602-4712, USA
SOURCE: Glycobiology (1999), 9(1), 93-100
CODEN: GLYCE3; ISSN: 0959-6658
PUBLISHER: Oxford University Press
DOCUMENT TYPE: Journal
LANGUAGE: English

AB A full-length c-DNA encoding a xyloglucan-specific endo-.beta.-1,4-glucanase (XEG) has been isolated from the filamentous **fungus** Aspergillus aculeatus by expression cloning in **yeast**. The colonies expressing functional XEG were identified on agar plates contg. azurine-dyed crosslinked xyloglucan. The cDNA encoding XEG was isolated, sequenced, cloned into an Aspergillus expression vector, and transformed into Aspergillus oryzae for heterologous expression. The recombinant enzyme was purified to apparent homogeneity by anion-exchange and gel permeation chromatog. The recombinant XEG has a mol. mass of 23,600, an isoelec. point of 3.4, and is optimally stable at a pH of 3.4 and temp. below 30.degree.. The enzyme hydrolyzes structurally diverse xyloglucans from various sources, but hydrolyzes no other cell wall component and can therefore be considered a xyloglucan-specific endo-.beta.-1,4-glucanohydrolase. XEG hydrolyzes its substrates with retention of the anomeric configuration. The Km of the recombinant enzyme is 3.6 mg/mL, and its specific activity is 260 .mu.mol/min per mg protein. The enzyme was tested for its ability to solubilize xyloglucan oligosaccharides from plant cell walls. It was shown that treatment of plant cell walls with XEG yields only xyloglucan oligosaccharides, indicating that this enzyme can be a powerful tool in the structural elucidation of xyloglucans.

REFERENCE COUNT: 55 THERE ARE 55 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L4 ANSWER 25 OF 32 CAPLUS COPYRIGHT 2002 ACS
ACCESSION NUMBER: 1998:608725 CAPLUS
DOCUMENT NUMBER: 129:215781
TITLE: Method for producing cellulose derivatives
INVENTOR(S): Noguchi, Yoshitaka; Kamachi, Motoaki
PATENT ASSIGNEE(S): Novo Nordisk A/S, Den.
SOURCE: PCT Int. Appl., 16 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9838328	A1	19980903	WO 1997-DK89	19970228
W: AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CU, CZ, DE, DK, EE, ES, FI, GB, GE, HU, IL, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, TJ, TM, TR, TT, UA, UG, US, UZ, VN, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM				
RW: GH, KE, LS, MW, SD, SZ, UG, AT, BE, CH, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9718717	A1	19980918	AU 1997-18717	19970228
EP 981639	A1	20000301	EP 1997-905002	19970228
R: SE, PT, FI				
US 2002084047	A1	20020704	US 1999-371343	19990810

PRIORITY APPLN. INFO.: WO 1997-DK89 A 19970228

AB Pulp is treated with a hemicellulase, e.g. a xylanase such as that derived from **Bacillus** sp. SD902 prior to being chem. modified. This results in excellent cellulose derivs. that could not be obtained by conventional methods. Specifically, the cellulose derivs. produced by this method have improved filterability and increased water soly. In addn., according to this method, the formation of microgel is minimized, and the distribution of the substituents in the cellulose derivs. through the intramol. substitution in the method is made more uniform.

L4 ANSWER 26 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1997:225440 BIOSIS
DOCUMENT NUMBER: PREV199799517156
TITLE: Fungal and plant **xyloglucanases** may act in concert during liquefaction of apples.
AUTHOR(S): Vincken, Jean-Paul; Van Den Broek, Lambertus A. M.; Van Der Lei, David D.; Beldman, Gerrit; Voragen, Alphons G. J. (1)
CORPORATE SOURCE: (1) Wageningen Agric. Univ., Dep. Food Sci., PO Box 8129, 6700 WV Wageningen Netherlands
SOURCE: Journal of the Science of Food and Agriculture, (1997) Vol. 73, No. 4, pp. 407-416.
ISSN: 0022-5142.
DOCUMENT TYPE: Article
LANGUAGE: English

AB Efficient enzymic degradation of cellulose in isolated cell wall material of apples requires prior removal of its xyloglucan coating. In this study, raw and blanched apple fruit tissues were treated with pectin lyase and various (combinations of purified) cellulases. These experiments confirmed that **xyloglucanase** activity is important for cellulose degradation in apple fruit tissue. Apart from this, it was observed that raw apple material disintegrated faster than blanched. Typically, the release of xyloglucan oligosaccharide XXXG from raw apple material was

slower (relative to XXFG) when compared to that from blanched material. The endogenous enzyme, xyloglucan endotransglycosylase (XET), is probably responsible for these phenomena. It is hypothesized that XET activity accelerates disintegration of apple tissue once its depolymerising mode is triggered by xyloglucan oligosaccharides released by exogenous endoglucanases.

L4 ANSWER 27 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1997:171283 BIOSIS
DOCUMENT NUMBER: PREV199799477886
TITLE: Substrate specificity of endoglucanases: What determines **xyloglucanase** activity.
AUTHOR(S): Vincken, Jean-Paul; Beldman, Gerrit; Voragen, Alphons G. J.
(1)
CORPORATE SOURCE: (1) Wageningen Agric. Univ., Dep. Food Sci., P.O. Box 8129,
6700 EV Wageningen Netherlands
SOURCE: Carbohydrate Research, (1997) Vol. 298, No. 4, pp. 299-310.
ISSN: 0008-6215.
DOCUMENT TYPE: Article
LANGUAGE: English
AB Endoglucanases from Trichoderma viride differ in their activity and mode of action towards xyloglucans. In order to explain the basis for their different behavior, the number of substrate-binding sites of three endoglucanases (endoI, endoIV, and endoV) were determined using bond cleavage frequencies of both normal and reduced cellodextrins and k-0/K-m.
EndoIV differed from other endoglucanases described so far, in having at least nine putative binding sites. The specificities of the three endoglucanases towards various xyloglucans derived from apple fruit and potato were determined. Also, the release of oligosaccharides from these substrates in time was monitored. It was concluded that the endoglucanases prefer to bind unbranched glucosyl residues. Because most xyloglucans are composed of XXXG-type of building units, distant subsites are needed to bind xyloglucan. Having at least nine substrate-binding sites, endoIV seems to be well equipped to degrade xyloglucans which was confirmed by its high **xyloglucanase** activity.

L4 ANSWER 28 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1997:380701 BIOSIS
DOCUMENT NUMBER: PREV199799679904
TITLE: Structural analysis of the Solanaceae xyloglucans using **xyloglucanase** hydrolysis method.
AUTHOR(S): Konishi, Teruko; Mitsuishi, Yasushi; Kato, Yoji
CORPORATE SOURCE: Fac. Educ., Hirosaki Univ., Hirosaki 036 Japan
SOURCE: Plant Physiology (Rockville), (1997) Vol. 114, No. 3 SUPPL., pp. 83.
Meeting Info.: PLANT BIOLOGY '97: 1997 Annual Meetings of the American Society of Plant Physiologists and the Canadian Society of Plant Physiologists, Japanese Society of Plant Physiologists and the Australian Society of Plant Physiologists Vancouver, British Columbia, Canada August 2-6, 1997
ISSN: 0032-0889.
DOCUMENT TYPE: Conference; Abstract; Conference
LANGUAGE: English

L4 ANSWER 29 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1997:380702 BIOSIS
DOCUMENT NUMBER: PREV199799679905
TITLE: Compositional analysis of the oligosaccharide units of xyloglucan from apple fruit cell walls.

AUTHOR(S): Saito, Sachiko (1); Konishi, Teruko; Mitsuishi, Yasushi; Ar[redacted]wa, Osamu; Kato, Yoji

CORPORATE SOURCE: (1) Fac. Educ., Hirosaki Univ., Hir[redacted]aki 036 Japan

SOURCE: Plant Physiology (Rockville), (1997) Vol. 114, No. 3 SUPPL., pp. 83.
Meeting Info.: PLANT BIOLOGY '97: 1997 Annual Meetings of the American Society of Plant Physiologists and the Canadian Society of Plant Physiologists, Japanese Society of Plant Physiologists and the Australian Society of Plant Physiologists Vancouver, British Columbia, Canada August 2-6, 1997
ISSN: 0032-0889.

DOCUMENT TYPE: Conference; Abstract; Conference

LANGUAGE: English

L4 ANSWER 30 OF 32 CAPLUS COPYRIGHT 2002 ACS DUPLICATE 12

ACCESSION NUMBER: 1997:137755 CAPLUS

DOCUMENT NUMBER: 126:197414

TITLE: Presence of xyloglucan-hydrolyzing glucanases (**xyloglucanases**) in arbuscular mycorrhizal symbiosis

AUTHOR(S): Rejon-Palomares, A.; Garcia-Garrido, J.M.; Ocampo, J.A.; Garcia-Romera, I.

CORPORATE SOURCE: Dpto. Microbiologia del Suelo y Sistemas Sinbioticos, Estacion Experimental del Zaidin, C.S.I.C., Granada, 18008, Spain

SOURCE: Symbiosis (1996), 21(3), 249-261
CODEN: SYMBER; ISSN: 0334-5114

PUBLISHER: Balaban Publishers

DOCUMENT TYPE: Journal

LANGUAGE: English

AB We studied the prodn. of xyloglucan-hydrolyzing glucanases (**xyloglucanases**) in roots of lettuce (Lactuca sativa), onion (Allium cepa) and soybean (Glycine max) colonized by the arbuscular mycorrhizal (AM) **fungus** Glomus mosseae. Endoxyloglucanase activity in mycorrhizal roots extd. with 100 mM Tris-HCl (pH 7) was higher than in nonmycorrhizal root exts. There were no significant differences in endoxyloglucanase activity between mycorrhizal and nonmycorrhizal roots when they were extd. with 200 mM Na2PO4 (pH 7.2), 100 mM NaCl, 100 mM potassium-phosphate buffer (pH 7.8) or 25 mM MES (Na) (pH 6.6). From the results obtained the most suitable extn. buffer for endoxyloglucanase activity in lettuce plants was 100 mM Tris-HCl (pH 7). Endoxyloglucanase activity was greatest when the reaction was carried out at pH 5 or 8, and activity declined at pH 3, 4, 6, 7 and 9. Maximum endoxyloglucanase activity was obsd. in a range of temps. between 37.degree.C and 50.degree.C. Tris exts. of mycorrhizal plants showed more endo- and exoxyloglucanase activity than nonmycorrhizal plants when nasturtium or tamarind xyloglucan was used as the substrate. Exts. from spores and external mycelia of G. mosseae also showed endo- and exoxyloglucanase activity. The possible participation of **xyloglucanase** activity in the colonization of plant roots by AM **fungus** is discussed.

L4 ANSWER 31 OF 32 CAPLUS COPYRIGHT 2002 ACS

ACCESSION NUMBER: 1994:623667 CAPLUS

DOCUMENT NUMBER: 121:223667

TITLE: A developmentally-regulated inducible plant promoter from the tomato gene for alcohol dehydrogenase 2 and its uses

INVENTOR(S): Speirs, James; Brady, Colin John; Lee, Elizabeth; Hinde, Richard; Longhurst, Terrence James

PATENT ASSIGNEE(S): Commonwealth Scientific and Industrial Research Organization, Australia

SOURCE: PCT Int. Appl., 27 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 9413797	A1	19940623	WO 1993-AU654	19931215
W: AT, AU, BB, BG, BR, BY, CA, CH, CZ, DE, DK, ES, FI, GB, HU, JP, KP, KR, KZ, LK, LU, LV, MG, MN, MW, NL, NO, NZ, PL, PT, RO, RU, SD, SE, SK, UA, US, UZ, VN				
RW: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, BF, BJ, CF, CG, CI, CM, GA, GN, ML, MR, NE, SN, TD, TG				
AU 9456887	A1	19940704	AU 1994-56887	19931215
AU 690530	B2	19980430		
EP 674708	A1	19951004	EP 1994-902546	19931215
R: AT, BE, CH, DE, DK, ES, FR, GB, GR, IE, IT, LI, LU, MC, NL, PT, SE				
JP 08504326	T2	19960514	JP 1993-513580	19931215
US 5821398	A	19981013	US 1995-448600	19950726

PRIORITY APPLN. INFO.:

AU 1992-6349	19921215
AU 1993-9059	19930528
AU 1993-712	19930819
AU 1993-713	19930819
WO 1993-AU654	19931215

AB The alc. dehydrogenase (ADH) 2 gene of tomato is cloned and an inducible soft fruit promoter from the gene is described for use in the control of ripening and softening-assocd. phenomena including the formation of volatiles affecting aroma and flavor. The gene may also be used to alter rates of fruit ripening and softening. A cDNA for the enzyme was cloned from a bank from tomato pericarp from fruits developing color by screening with a tomato genomic DNA fragment that cross-hybridized with ADH genes from other plants. A clone that was present in ripe fruit, but not unripe fruit, was obtained. This transcript was also found in anaerobic roots but not in aerobic roots and the gene showed a pattern of expression distinct from that of the ADH1 gene. The cDNA was used to obtain the promoter region from a genomic clone.

L4 ANSWER 32 OF 32 BIOSIS COPYRIGHT 2002 BIOLOGICAL ABSTRACTS INC.
ACCESSION NUMBER: 1994:133619 BIOSIS
DOCUMENT NUMBER: PREV199497146619
TITLE: The effect of xyloglucans on the degradation of cell-wall-embedded cellulose by the combined action of cellobiohydrolase and endoglucanases from Trichoderma viride.
AUTHOR(S): Vincken, Jean-Paul; Beldman, Gerrit; Voragen, Alphons Gerard Joseph (1)
CORPORATE SOURCE: (1) Wageningen Agric. Univ., Dep. Food Sci., 6700 EV Wageningen Netherlands
SOURCE: Plant Physiology (Rockville), (1994) Vol. 104, No. 1, pp. 99-107.
ISSN: 0032-0889.
DOCUMENT TYPE: Article
LANGUAGE: English
AB Two endoglucanases of Trichoderma viride, endoI and endoIV, were assayed for their activity toward alkali-extracted apple xyloglucans. EndoIV was shown to have a 60-fold higher activity toward xyloglucan than endoI, whereas carboxymethyl cellulose and crystalline cellulose were better substrates for the latter. The enzymic degradation of cellulose embedded in the complex cell-wall matrix of apple fruit tissue has been studied using cellobiohydrolase (CBH) and these two different endoglucanases. A high-performance liquid chromatographic method (Aminex HPX-22H) was used to monitor the release of cellobiose and oligomeric xyloglucan fragments. Synergistic action between CBH and endoglucanases on cell-wall-embedded

cellulose was, with respect to their optimal ratio, slightly different from that reported for crystalline cellulose. The combination of endoIV and CBH solubilized twice as much cellobiose compared to a combination of endol and CBH. Apparently, the concomitant removal of the xyloglucan coating from cellulose microfibrils by endoIV is essential for an efficient degradation of cellulose in a complex matrix. Cellulose degradation slightly enhanced the solubilization of xyloglucans. These results indicate optimal degradation of cell-wall-embedded cellulose by a three-enzyme system consisting of an endoglucanase with high affinity toward cellulose (endoI), a **xyloglucanase** (endoIV), and CBH.